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ABSTRACT

Severe methodological problems were encountered in an attempt to investigate the impact of Education Division programs on girls and women--and, in particular, to learn whether these programs have a differential impact by sex or by race/ethnicity. (The "Education Division" comprises the Office of Education, the National Institute of Education, the Fund for the Improvement of Postsecondary Education, the National Center for Education Statistics, and the Office of the Assistant Secretary.) The division remains in June 1977 unable to report fully and accurately what types of data are available by sex or by-sex-by-race/ethnicity. Gathering and reporting more kinds of data disaggregated by sex and by-sex-by-race/ethnicity is only the first step. Effective procedures also do not exist within the division for (1) analyzing the data and reporting them in a way that is meaningful to decision makers, (2) bringing the data to the attention of the appropriate decision makers, and (3) acting upon the data. Funding shortages and cutbacks have affected much related high-priority research. (In response to the problems identified, specific recommendations are addressed to specific groups within the Education Division for the generation and utilization of information necessary to the improvement of equity for women.) (JT)

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Problems in Assessing the Impact of Education Division Programs on Girls and Women

JoAnn M. Steiger

for

The National Advisory Council on Women's Educational Programs

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Washington, D.C.

October, 1977

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Preface

The National Advisory Council on Women's Educational Programs was created by law in 1974 to advise the Assistant Secretary for Education, the President and the Congress on all Federal education programs as they affect girls and women. Responding to this mandate, the Council has commissioned five papers addressing the following questions: (1) How do women participate in management and policy development? (2) What efforts are made toward sex fairness in the use of Federal funds in the Education Division? (3) What are the problems in assessing the impact of Education Division Programs on girls and women? (4) How sex fair are communications, products and dissemination strategies? (5) What changes are necessary in legislation, regulations and enforcement to prevent sex discrimination and overcome sex and stereotyping?

These papers grew out of the Council's desire to follow up recommendations made in 1972 by an internal Office of Education Task Force. The Task Force report, *A Look at Women in Education: Issues and Answers for HEW*, documented discrimination against women throughout the nation's education system and made thirty-three recommendations for change in U.S. Office of Education practices. A follow-up report entitled *Challenging Sex Discrimination Through Organizational Reform* (1975), by Holly Knox and Mary Ann Millsap, two of the original Task Force members, found that little had been done to implement these recommendations. The Council wanted to know what has been done since.

It became clear that -- because of internal reorganizations within the Education Division*, changes in legislation and changes in personnel -- simply tracing the original recommendations would not give an accurate picture of either accomplishments or needs. Therefore, the concept of the review was expanded to include a general analysis of what efforts the Education Division has made to improve opportunities for girls and women** and of what obstacles to equality of the sexes remain. The 1972 report is the baseline against which progress is measured.

These reports aim to identify key problems, describe exemplary efforts to promote sex fairness, and recommend practical changes in Education Division policy and practice that would improve equity for women.

**The Education Division comprises the Office of Education, the National Institute of Education, the Fund for the Improvement of Postsecondary Education, the National Center for Education Statistics, the Office of the Assistant Secretary.*

***The term women as used in these reports includes both minority and non-minority women. The Council is fully aware of, and deeply concerned about, the double burden of discrimination borne by minority women. Wherever possible, minority women are discussed as a special group.*

METHODOLOGY

The information for these papers was collected between August 1976 and February 1977. Three basic sources were used:

1. INTERVIEWS. A team composed of a consultant and a member of the Council staff interviewed more than thirty top officials in the Education Division, including deputy commissioners, associate commissioners and associate directors. In addition, women occupying high-level positions in the Division were interviewed.

2. GROUP MEETINGS AND QUESTIONNAIRES. Further information was gathered from major subdivisions* through group meetings with employees who volunteered or who were selected to help with the study by the persons in charge of those units. At the preliminary meeting with each group, questionnaires were distributed; follow-up meetings were held to discuss responses to the questionnaire.

3. ANALYSIS OF DOCUMENTS. Where they could shed light on the subject, documents such as affirmative action plans, grant guidelines and products developed with Education Division funds were reviewed.

A draft report was written and circulated to all interested parties, including people who had participated in the information-gathering phase. The draft was revised to incorporate the suggestions of the reviewers where appropriate.

Although in some cases the information given to us by interviewees could be corroborated, in other cases limitations of time and funding prohibited a search for additional witnesses. Where appropriate, the sources of information are noted, but the names of some individuals giving information in the interviews have been withheld for their protection.

This report was written under contract with Steiger, Fink, and Kosecoff, Inc., of McLean, Virginia.

Units that participated in the group meetings were:
The Bureau of Occupational and Adult Education
The Bureau of Elementary and Secondary Education
The Bureau of Education for the Handicapped
The Bureau of Postsecondary Education
The National Institute of Education
The Fund for the Improvement of Postsecondary Education.

In addition the Office of Education's Regional Offices responded to the questionnaires.

Executive Summary

In an attempt to investigate the impact of Education Division programs on girls and women -- and, in particular, to learn whether these programs have a differential impact by sex or by race/ethnicity -- the National Advisory Council on Women's Educational Programs encountered severe methodological problems.

One methodological problem is that measures of many of the concepts relevant to the study are technically rudimentary where they exist at all. Moreover, there is little or no baseline information against which to measure progress. Therefore, because of severe resource limitations, this analysis had to rely heavily on secondary data, but the necessary data were often inaccessible, noncomparable or simple nonexistent. To determine if Education Division programs affect men and women differently, or affect white women and minority women differently, one must start with some basic statistical series describing patterns of participation by sex and by-sex-by race/ethnicity: for instance, enrollemnt in educational programs, education completion rates, employment patterns (job title, grade level), and wages. Once the basic patterns of the numbers are determined, one must probe behind them -- by means of case studies, interviews, questionnaires and hearings -- to discover possible chains of causality that may in turn involve discrimination, bias and stereotyping. To measure progress toward the goal of equity, one needs comparable trend data. The study was frustrated by the unavailability of such essential information. (See Chapter I.)

Initially, the Council attempted to find what data are available by sex and by-sex-by-race/ethnicity. Several units within the Education Division have been concerned with the collection of data on education. In response to recommendations of a 1972 Office of Education task force, the National Center for Education Statistics (NCES) now collects data by sex in many of its surveys. In addition, the Federal Interagency Consortium of Users of Education Statistics, operated by NCES, produced a *Directory of Federal Agency Education Data Tapes* (1976), which contains information on the "significant variables" included on each tape. Though a considerable advance, this Directory was not entirely satisfactory, since it underreports the number of tapes containing data by sex or by-sex-by-race/ethnicity. Neither the Data Task Force assembled by the Office of Education's Women Program Staff nor the International Women's Year Survey were able to obtain, through requests for voluntary cooperation, comprehensive and accurate information from program officials on current data collection patterns. In short, those groups most concerned with the problem have not had either the resources or the authority to determine what types of data are available by sex and by-sex-by-race/ethnicity. (See Chapter II.)

Collecting the necessary data is just the first step in providing equity for girls and women. Additional steps include (1) analyzing the data and reporting them in a way that is meaningful to decision makers, (2) bringing the data to the attention of the appropriate decision makers, and (3) act-

ing upon the data. Among the problems that arise in analyzing and reporting data are that data may be collected by sex or by-sex-by-race/ethnicity but never tallied and that they may be tallied but never examined for possible patterns of sex discrimination, bias and stereotyping. Moving from data to action has proved difficult because there is no existing systematic procedure for conveying to decision makers information about the impact of Education Division programs on girls and women in the normal course of program operation; heretofore, advocacy groups or a few program officials sensitive to the problems of women have been chiefly responsible for bringing matters of possible discrimination, bias and stereotyping to the attention of officials. Evaluations and research studies seem a particularly valuable way to probe into the reasons behind patterns of differential impact by sex. One approach recently initiated for bringing such problems to the attention of the relevant officials is the Program Implementation Memorandum, whereby the Office of Planning, Budgeting and Evaluation staff extracts from the findings of an evaluation report the program implications with respect to policy, budget, regulations and legislation for specific offices within the Office of Education. The staff develops a memorandum outlining these implications for the Commissioner of Education who then assigns responsibility for responding to the memorandum to the appropriate Deputy Commissioner. Clearly, a number of different studies are needed to bring about a better understanding of the meaning of different patterns of employment and participation between the sexes, but those people within the Education Division who are interested in sponsoring such research have recently faced funding shortages and cutbacks that have caused them to shelve a number of high-priority topics. (See Chapter III.)

RECOMMENDATIONS

In light of all these considerations, the Council makes the following recommendations:

1. The National Center for Education Statistics, with the Federal Interagency Consortium of Users of Education Statistics, should prepare and publish a directory of data tapes that accurately describes the extent to which each tape contains data disaggregated by sex and by sex-by-race/ethnicity.

2. The Commissioner of Education should appoint a task force on data collection, working directly out of the Commissioner's office and having full authority to gather the necessary information. The Women's Program Staff should be heavily involved in this effort and should be provided with the necessary resources.

3. This task force should develop and publish a comprehensive tabulation of data collected by programs, including descriptions of the extent to which data are collected and reported by sex and by-sex-by-race/ethnicity.

4. The recommendations on data collection made by the Women's Program Staff (cited in Chapter II) should be adopted.

5. The Education Division should establish a systematic procedure for bringing data concerning the differential impact of programs by sex or by race/ethnicity to the attention of decision makers.

6. The Education Division should make data on sex differences readily accesible to identified users of such data outside of the government.

7. All Education Division evaluations should include an analysis of the differential impact of programs on the sexes and on various racial/ethnic groups within each sex.

8. Evaluation findings that show a differential impact by sex should be entered into an action-decision mechanism such as the PIM (see p.12).

9. All policy studies should include an analysis of the impact of various policies on girls and women.

10. Additional funds should be made available for research into the factors behind sex differences in participation and employment in Education Division programs.

I. Introduction

Between August 1976 and February 1977, the National Advisory Council on Women's Educational Programs, in accordance with its legislative mandate, conducted an inquiry into the impact of Education Division programs on girls and women. The study began with the following basic research questions:

1. Do Education Division programs affect girls and women differently than they affect boys and men?
2. In cases where programs do have a differential impact by sex, to what extent is that difference attributable to sex discrimination, sex bias and sex stereotyping?
3. Do Education Division programs affect minority women differently than they affect white women?
4. In cases where programs do have a differential impact by race/ethnicity, to what extent is that difference attributable to discrimination, bias and stereotyping?
5. What efforts are being made to foster equity for girls and women in education?
6. What progress has been made since 1972* toward reducing sex discrimination, bias and stereotyping in Education Division programs?

Serious methodological problems were encountered in these research questions. In the first place, there is no consensus on how to define the terms SEX DISCRIMINATION, SEX BIAS and SEX STEREOTYPING. Second, measures of many of the concepts relevant to the study are technically rudimentary where they exist at all. Third, there is little or no baseline information against which to measure progress. Finally, severe resource limitations dictated that this analysis rely heavily on secondary data, but the necessary data were often found to be inaccessible, noncomparable, or simply nonexistent.

This report discusses some of these problems and makes recommendations as to the types of information that the Education Division ought to collect and use in decision making.

DEFINITIONS

The definitions of SEX DISCRIMINATION, SEX BIAS and SEX STEREOTYPING that appeared in the Office of Education's proposed regulations for Title II of the Education Amendments of 1976, will serve as a starting point. They were as follows:

(a) "Sex bias" means behaviors resulting from the assumption that one sex is superior to the other.
(b) "Sex stereotyping" means attributing behaviors, abilities, interests, values and roles to a person or group of persons on the basis of their sex.
(c) "Sex discrimination" means any action which limits or denies a person or a group of persons opportunities, privileges, roles or rewards on the basis of their sex.[1]

Although these definitions seem fairly clear, they present some problems. For example, the lines between the terms are fuzzy, and the definition of BIAS does not seem to allow for a number of common uses of the term. Therefore, although we would prefer to use definitions that have the weight of Federal regulation behind

*This date was selected for two reasons: (1) In that year the Federal law prohibiting sex discrimination in Federally funded education programs -- Title IX of the Education Amendments of 1972 -- became law. (2) A study of the impact of Office of Education programs on women was conducted that year by an internal Office of Education task force, providing some baseline data.

them, a certain amount of interpretation and refinement was necessary.

For the purposes of this and other reports in this series, the term SEX DISCRIMINATION applies to actions that limit or deny to individuals or to groups of people opportunities, privileges, roles or rewards on the basis of their sex -- provided that the actions violate or appear to violate the Federal Civil Rights Laws. The laws in question include Title IX of the Education Amendments of 1972 and Title VII of the Civil Rights Act of 1964, as amended. The test of what the laws require will be their wording, the regulations implementing them, and the interpretations of the courts.

Having circumscribed the boundaries of the term DISCRIMINATION, we are left with the difficult task of clarifying the meaning of BIAS. In common usage, this term connotes having preferences in a certain direction, such as being biased in favor of traditional furniture or being biased against the Cincinnati Reds. It implies having preconceptions that interfere with one's abilities to make a dispassionate judgement. Thus, the term "biased textbook" is commonly used to describe a book that presents a single, highly restricted point of view to which issue is taken by those who see things otherwise. The Office of Education's definition of sex bias -- "behaviors resulting from the assumption that one sex is superior to the other" -- is perhaps too global in its assumptions. Although some actions may indeed be based on the conviction that one sex is superior in all ways to the other, we believe it is more reasonable to say that many actions commonly called biased result from an assumption that one sex is superior to the other with respect to a particular kind of task. SEX BIAS, then, will be used to mean behavior that favors one sex and that is based on sex stereotypes.

As for the term SEX STEREOTYPING, the OE definition -- "attributing behaviors, abilities, interests, values and roles to a person or group on the basis of their sex" -- seems appropriate for our purposes and will be used essentially as stated. Most observed differences in the roles and behavior of the sexes result from cultural patterns and attendant socialization. These arbitrarily sex-differentiated roles become a problem when the economic and social systems change but sex-role socialization lags behind the changes. For example, girls and women in the United States are discouraged from preparing themselves to be self-supporting, even though the majority of their sex eventually find it necessary to work outside the home as adults, many as the sole support of their families.

As the above discussion makes clear, sex stereotyping, sex bias and sex discrimination are closely related and form a hierarchy. Belief in sex stereotypes leads to behaviors that are sex biased. Some of these biased behaviors become formally defined as discrimination, thus affording legal redress to those who have suffered because of such behaviors.

One other term needs to be discussed. EQUITY -- as in the Women's Educational Equity Act -- is commonly used to mean "fairness." But what is fair? Simply an absence of discrimination?

For the purposes of these reports, the term EQUITY means the absence of sex discrimination, sex bias and sex stereotyping. Efforts to foster equity, which this study sought out, are any activities undertaken with the purpose of reducing sex stereotyping, bias or discrimination. Thus a teacher-training project to raise teachers' awareness of the consequences of sex stereotyping is considered an effort to foster equity, even though it does not attack discrimination directly.

To treat women equitably does not always mean to treat them exactly the same as men. In those cases where physiological differences exist, activities which recognize those differences and do not penalize women for them are equitable. In addition, programs that attempt to compensate for a legacy of discrimination, bias and stereotyping by providing special services to women are considered efforts to foster equity.

Terms relating to discrimination, bias and stereotyping on the basis of race/ethnicity are used in these papers in a manner parallel to the meanings of sex discrimination, bias and stereotyping.

MEASURES

How can the concepts involved in the research questions posed at the beginning of this chapter be measured? This section discusses some general issues concerning the types of information needed, and the following chapters deal with some of the practical issues connected with obtaining the needed data.

To determine if Education Division programs affect females and males differently, one must start with some basic statistical series which describe the patterns of participation for both sexes. Obviously, one needs data breakouts by sex. Similarly, efforts to investigate differences in the impact of various programs on white women and on minority women* require data disaggregated by sex for each racial/ethnic group being considered. Such disaggregated data would appear necessary for the following data series:

Students:
- applicant pool
- applicants
- enrollment in programs
- completion rates
- achievement
- receipt of benefits and honors

Employees:
- eligible pool
- applicants
- employment patterns (job title, grade level)
- wage rates
- job security
- fringe benefits

The term women as used in this report includes both minority and non-minority women. The Council is fully aware of, and deeply concerned about, the double burden of discrimination borne by minority women. Wherever possible, minority women are discussed as a special subgroup.

To be sure, no one of these sets of numbers in and of itself proves anything about discrimination, bias or stereotyping. Taken together, however, they can help support or refute hypotheses of discrimination, bias or stereotyping. Once one knows the basic patterns of the numbers, one must probe behind them to find why those patterns emerge. Such probing in depth can be done through case studies, interviews, questionnaires and hearings.

Such data provide insights into possible chains of causality, enabling the investigators to distinguish among discrimination, bias and stereotyping. Without the basic statistical series to show general patterns, it is easy to dismiss individual cases as exceptions, misunderstandings or incidents of little consequences.

To measure change over time, comparable data for different periods are required. Once again, to understand the reasons for change, one needs detailed information on activities and events. As the amount of relevant information increases, it becomes easier to differentiate plausible from less likely hypotheses of causality.

In the investigations undertaken for this series of reports, the authors were dependent on existing Education Division data on general patterns of participation and employment. Primary information was collected to seek answers to the "why" questions and to report efforts made to foster equity. The study was frustrated by the absence of a number of essential data series. The following chapters discuss the problem of obtaining such data, efforts that have been made to improve the situation, and recommendations for further progress.

II.
What data are available disaggregated by sex?

For many years feminist groups have requested that the Department of Health, Education and Welfare (HEW) investigate sex bias in education programs and report data on programs by sex. The issue was raised by an internal Office of Education report in 1972. In May 1972, then Commissioner of Education Sidney P. Marland created a task force to investigate charges of sex discrimination in Office of Education programs that had been leveled in a study by the HEW Women's Action Program earlier that year.

The Commissioner's task force found indications of widespread sex discrimination, bias and stereotyping throughout the nation's education system and made thirty-three recommendations for changes in OE practices that might help overcome this problem.

Five of those recommendations related to research and data collection:

1. All research instruments should be reviewed for sex bias.
2. All research projects should use samples which include people of both sexes, except under exceptional circumstances.
3. In surveys conducted by the National Center for Education Statistics, all data should be collected and reported disaggregated by sex, including information on staff.
4. Evaluation and planning studies should include special sections concerning the impact of programs on girls and women.
5. Data collected from Office of Education and National Institute of Education programs should be collected and reported disaggregated by sex.

NATIONAL CENTER FOR EDUCATION STATISTICS

Data on education programs are collected by a number of authorities. The National Center for Education Statistics (NCES) is responsible for general surveys of education. For example, they sponsor surveys of the enrollment and staffing of post-secondary vocational education programs, of the employment experience of high school graduates, and of students enrolled and degrees conferred in higher education institutions.

The 1972 task force report recommended that sex breakdowns be added to many of the NCES surveys. To a large extent those recommendations have been carried out. The following kinds of data are now collected by sex through NCES surveys:

ELEMENTARY AND SECONDARY EDUCATION

State summaries on staff
Data on high school graduates
Data on characteristics of vocational education students in noncollegiate schools

POSTSECONDARY VOCATIONAL EDUCATION

Data on enrollment and staff
Data on characteristics of vocational education students in noncollegiate schools

LIBRARY

Data on staff will be collected by sex for all ongoing and proposed surveys of libraries, networks, educational broadcasting and museums.

ADULT EDUCATION

Data on participation in adult educational programs
Data on adult education in community organizations
State reports on Adult Basic Education

HIGHER EDUCATION

Surveys of faculty in higher education include salary data by rank and sex.
Surveys of students enrolled and of degrees conferred historically have provided data by sex

OTHER SURVEYS

Educational Occupational Status of Recent College Graduates with Special Emphasis on Additions to the Teacher Supply
Bilingual Education Studies:
- Spring 1976 Survey of Income and and Education
- Survey of Language Supplement to July 1975 Current Population Series
- Proposed Fall 1976 Survey of Teacher's Language Skills
- Proposed Fall 1976 Survey of Income and Education Pupil Survey
- National Longitudinal Study
- National Assessment of Educational Progress
- Data on athletic injuries and deaths

During 1976, NCES prepared the following special analyses:

1. Participation of women in first-professional-degree programs in medicine, dentistry, veterinary medicine and law: The analysis focuses on the issue of equal access.
2. Number and percentages of doctorates awarded to women: Data are being reported, by field, over a period of time.
3. Bachelor's, master's and doctor's degrees awarded to women, 1965-66 through 1973-74: The analysis focuses on changes in the distributions by field throughout this period.

THE FEDERAL INTERAGENCY CONSORTIUM OF USERS OF EDUCATION STATISTICS

In addition to its function as a collector of data, NCES has a mandate to operate a consortium with other Federal agencies that have a need for educational data. More than thirty agencies are now involved in the Federal Interagency Consortium of Users of Education Statistics. One of the early priorities of this group was to improve the availability and accessibility of education data, and to this end, the consortium produced a *Directory of Federal Agency Education Data Tapes* in 1976.[2] This directory contains information on the "significant variables" included on each tape. For example, on the Equal Educational Opportunity Survey, significant variables include, "Characteristics of schools -- racial composition, physical facilities and education resources, curriculums offered, academic practices. . ."[3]

From this directory, the Council had hoped to construct a chart showing which tapes contained data by sex and which contained data by-sex-by-race/ethnicity. Such a chart would not only assist researchers and decision-makers seeking information on sex equity but also help identify gaps in availability of data by sex. A preliminary survey by Council staff, however, revealed that the Directory seriously underreports the number of tapes that contain data by sex. Of seventy-two tapes reviewed, the Directory indicated that sex data were available on only twenty-four, or 35 percent. But the Council's investigation of these seventy-two data tapes revealed that forty-nine, or 68 percent, contained information collected by sex. This finding indicated that an accurate chart could not be constructed without considerable additional research and verification, a task beyond the limited resources of the Council.

EDUCATION PROGRAMS

Most information on participation in Education Division programs is collected by the program officials. For example,

statistical data on participants in formula grant programs, frequently necessary for establishing funding levels and for monitoring compliance with the requirements of programmatic legislation, are collected by the program staff. But it is not always required that these data be collected or reported by sex or by sex-by-race/ethnicity.

The problem of determining (1) what data are collected by program officials and (2) of those data, which are collected by sex, has proved to be a difficult if not impossible task.

EFFORTS BY WOMEN'S PROGRAM STAFF

In June 1973, in response to the November 1972 report of the Task Force on the Impact of Office of Education Programs on Women, the Commissioner of Education agreed to establish a Women's Program Office, which would be responsible for, among other things, monitoring the implementation of the Task Force's recommendations. In May 1974, the Women's Program Staff (WPS) was created; it was not, however, given authority commensurate with its monitoring responsibilities. It could request cooperation but had no power to compel it.

In June 1974, the Director of the WPS sent a memorandum to all top OE officials asking them to report on implementation of recommendations. Only five of ten units had responded by August, and few of these reported any action.

In July 1974, the WPS asked program administrators specifically to report what program data were being collected by sex. Response was spotty but indicated that little information was, in fact, being collected by sex. As a result of this finding, the Director of WPS urged that an agencywide task force on data collection be created, and such a task force was established in early 1975. Participation, however, was voluntary, and participants were not allowed release time. Some units were actively involved in the task force, some less so. In these circumstances, it proved impossible to make a comprehensive tabulation of program data. Participants shared ideas, and some detailed information was collected on both data available by program and data now unavailable but desirable. The WPS has drafted a report based on the findings and suggestions. Draft recommendations include the following:

I. Sex data items to be required by all programs on forms (applications/ reports)

   A. Participant Data

      1. *Number of Applicants,* Male/ Female: Important of course to indicate just who is involved in the training programs, and the proportion of males and females participating.
      2. *Full-Time and Part-Time:* We need these data to know the demand for both part- and full-time programs.
      3. *Completion of Programs:* The number of applicants, disaggregated by sex, who complete a program will illuminate whether women who begin the programs actually finish.

   B. Staff Data

      1. *Staffing Patterns:* Disaggregated by sex, how many work on the training/teaching staff? Hiring policies within the staff itself provide information on the advancement of women.
      2. *Directors:* What number of men and of women hold the more important positions within the training staff?
      3. *Part-Time and Full-Time:* As with data on staffing patterns, this information is helpful to get a clear picture of the staff composition.

II. Data that should be collected by use of sampling projects

1. *Hard Money:* How many men/women are funded by stable funds? Interesting to find out priority given to either sex.
2. *Soft Money:* As above, who, according to sex, are employed on less stable, or temporary funds? The facts of these two questions might uncover a sexually discriminatory situation.

III. Optional data surveys if applicable

1. *Follow-up Data:* Where do graduates go? What type of jobs are members of each sex offered? This will be a good indication of the success these projects have had in equalizing employment opportunities, and also, of course, improving employment opportunities for all.
2. *Areas of Training by Sex:* These data may indicate if traditionally male or female areas have been "broken into" by either sex.

IV. Data collection that should be or is dependent on regulations

1. *Advisory Committee Composition by Sex:* Why are there no more women occupying positions? A question of qualifications? and/or selection procedures?
2. *Materials Development:* Checked for sex bias. Obvious check of biased slant of materials used, also of trainers.

V. Data already available through existing programs

1. *Academic Rank:* How do the sexes compare in qualifications on the staff? What is the pay scale of equally qualified men and women?

METHODS OF COLLECTING DATA

Use existing forms - applications or reports

If item does not now exist, append additional information or indicate with use of asterisk.

RECOMMENDATIONS

A. Each program should evaluate existing forms, studies, etc., as an index of sex stereotyping and as to utilization of data.

B. Plans should be devised for sharing of information between programs. Interchange between task force members was beneficial.

C. Information on sex data collection should be forwarded to the Commissioner as a package indicating strategies and implementation activities.

D. A follow-up mechanism should be developed to implement or to monitor the recommendations of this Task Force.[4]

INTERNATIONAL WOMEN'S YEAR QUESTIONNAIRE

In 1975, as part of a government-wide International Women's Year effort, the Women's Action Program of the Department of Health, Education and Welfare conducted a survey of the Education Division.* Among the questions asked were the following:

Question #37 - Is any long-term research being planned or conducted to measure program impact on women? If yes, will this measure include tabulation of the data by sex in conjunction with age, race/ethnicity or income?

Question #38 - Have the results of any past research in this area been examined for planning implications? If yes, what changes have resulted?

Question #39 - Is data gathered on the recipient population by sex? If yes, do you tabulate the data based on sex in conjunction with age, race/ethnicity, income?

**A summary of the results of this survey is available upon request to the National Advisory Council on Women's Educational Programs.*

Question #40 - Does the program evaluate its services delivery by sex? If yes, do you tabulate the data based on sex in conjunction with age, race/ethnicity or income?

The Women's Action Program had no power to compel Education Division units to participate in this survey, and cooperation was uneven. Many units did not respond at all, and others did not take the time to answer thoroughly. Information received indicated that little information was being collected by sex.

SUMMARY OF FINDINGS AND CONCLUSIONS

In June 1977, the Education Division remains unable to report fully and accurately what types of data are available by sex or by-sex-by-race/ethnicity. The first attempt of the Federal Interagency Consortium of Users of Education Statistics in 1976 to publish a Directory of Federal Agency Education Data Tapes, though a great step forward, was not fully satisfactory, since the Directory under-reports the number of tapes containing data by sex or by-sex-by-race/ethnicity. Neither the International Women's Year Survey nor the Data Task Force assembled by the Office of Education's Women's Program Staff was able to obtain, through requests for voluntary cooperation, comprehensive and accurate information from program officials on current data collection patterns.

RECOMMENDATIONS

In light of these findings the Council makes the following recommendations:

1. The National Center for Education Statistics, with the Federal Interagency Consortium of Users of Education Statistics, should prepare and publish a directory of data tapes that accurately describes the extent to which each tape contains data disaggregated by sex and by-sex-by-race/ethnicity.

2. The Commissioner of Education should appoint a task force on data collection. This task force would work directly out of the Commissioner's office and would have full authority to gather the necessary information. The Women's Program Staff should be heavily involved in this effort and should be provided with the necessary resources.

3. This task force should develop and publish a comprehensive tabulation of data collected by programs, including descriptions of the extent to which data are collected and reported by sex and by-sex-by-race/ethnicity.

4. The recommendations on data collection made by the Women's Program Staff (cited earlier in this chapter) should be adopted.

III.
Using information concerning the impact of programs on girls and women.

Collecting the necessary data is just the first step in providing equity for girls and women. Additional steps include (1) analyzing the data and reporting them in a way that is meaningful to decision makers, (2) bringing the data to the attention of the appropriate decision makers, and (3) acting upon the data.

DATA ANALYSIS AND REPORTING

Several common problems arise in analyzing and reporting information on the impact of education programs on girls and women. Among them are the following:

1. Data may be collected by sex as part of a large survey or study, but because the issue of sex bias is given low priority, these data may never be tallied. An example is the Office for Civil Rights' 1974 survey of area vocational technical schools. Data on enrollees were collected by-sex-by-race/ethnicity, but the data on secondary schools were never analyzed. (NCES did tally data on postsecondary students.)

2. Data on the sex of participants and staff may be collected in bits and pieces but never analyzed for program implications. For example, all proposals contain the names of principal project staff, but program officials rarely analyze these data for patterns of sex bias.

3. Even in cases where data are tallied by sex, no further analysis may be conducted to reveal patterns of sex discrimination, bias or stereotyping, and no further research may be done to find the reasons for these patterns. For example, data on vocational education enrollments by sex were reported in tallies until 1972, but the implications of those numbers were not understood until feminists outside of HEW computed the percentage of women in traditionally male courses, investigated the reasons behind these patterns, and brought this situation to the attention of program officials.

MOVING FROM DATA TO ACTION

The Education Division has been made aware of sex discrimination, bias and stereotyping in its programas in the following ways:

1. External feminist groups have brought issues to the attention of HEW through direct meetings and appeals to Congress. An example is enactment of the Women's Educational Equity Act, Congress' legislation which the Administration at the time opposed.

2. Specific programs and offices such as the Women's Program Staff (OE), the Women's Research Staff (NIE), and the Education and Work Group (NIE) have funded studies of the problems of equity for women in eduation and brought the findings to the attention of higher officials.

3. A few program officials, sensitive to the problems of women, have funded studies and looked seriously at the results. (This is discussed in depth in the second report in this series, "Efforts Toward Sex Fairness in the Use of Federal Funds in the Education Division.")

4. Advisory groups especially concerned with women's issues have brought the matter before Education Division policy makers.

Absent from this list is any systematic procedure for conveying to decision makers information about the impact of programs on girls and women gathered in the normal corse of program operation. Although highly focused advocacy groups are important, they have available only miniscule levels of funding and staff and cannot act as a substitute for a good internal management system that considers equity for women a priority.

EVALUATIONS AND RESEARCH STUDIES

Evaluations and research studies offer an excellent opportunity to probe into the reasons behind patterns of differential impact by sex. Evaluations are conducted regularly by the Office of Planning, Budgeting and Evaluation, by program offices, by state and local education agencies and by individual projects. Research studies are funded by programs. In a few rare cases, Congress mandates a study focused specifically on problems of sex discrimination, bias and stereotyping. Examples are the Commissioner's Report mandated as part of the Women's Educational Equity Act, and the study of sex discrimination, bias and stereotyping in vocational education mandated as part of the Education Amendments of 1976. Outside of those few programs that have shown a particular interest in women's equity issues, these questions are not usually raised.*

**For further discussion of these issues, see the second report in this series, "Efforts Toward Sex Fairness in the Use of Education Division Funds ."*

If evaluations and research studies do uncover information on sex discrimination, bias or stereotyping, the additional problem of bringing this information to the attention of relevant decision makers remains. John Evans, the Director of OE's Office of Planning, Budgeting and Evaluation (OPBE), has been concerned with the general issue of increasing the action impact of evaluation results. One approach that he has tried is the Program Implementation Memorandum or PIM. A PIM works as follows: When an evaluation report is received, the OPBE staff extracts from the findings the program implications with respect to policy, budget, regulations and legislation for specific offices within the Office of Education. A memorandum outlining these implications is developed for the Commissioner of Education. Responsibility for responding is assigned by the Commissioner to the appropriate Deputy Commissioner, with a due date. Because the PIM has only been tried a few times so far, its merit has not been proven, but it may ultimately develop into a effective mechanism for dealing with normal bureaucratic inertia.

TOPICS FOR FUTURE RESEARCH

Those people within the Education Division who are interested in sponsoring research into issues of women's equity report that funding shortages and cutbacks have caused them to shelve a number of high-priority topics. For example, the Education and Work Group of the National Institute of Education had to postpone planned studies on sex-role values and on sex-atypical roles. To bring about a better understanding of the meaning of differing patterns of participation and employment between the sexes, NIE should sponsor research on a variety of related topics, including the following:

- a national, interdisciplinary study of all the factors that affect women's educational and occupational opportunities and choices, and the interactions among these factors

- analytic, rather than descriptive, studies of the process of sex discrimination
- studies of achievement patterns in women, including a study of leadership capacity and motivation
- a comprehensive review of the research on the psychology of sex differences
- development of a methodology for the writing of valid statements related to the impact on women's issues of legislation
- studies of the impact of the legal system on women
- studies of women in different cultural contexts

SUMMARY OF FINDINGS AND CONCLUSIONS

Although there is an urgent need to gather and report more kinds of data disaggregated by sex and by-sex-by-race/ethnicity, that is only the first step. Data that show a differential impact on the sexes, or on different racial/ethnic groups, should be brought to the attention of decision makers so that steps can be taken to determine the causes of the differences and, where appropriate, to initiate or intensify efforts to overcome sex discrimination, bias and stereotyping. Educational equity cannot be considered in isolation or approached as a separate entity. It must be a fundamental consideration in the development of research and programmatic activities and acknowledged as such by those who influence policy. The quality of data generated makes an important difference to the value of Education Division programs in promoting educational equity for girls and women.

RECOMMENDATIONS

Based on its findings, the Council makes the following recommendations:

1. The Education Division should establish a systematic procedure for bringing data concerning differential impact of programs by sex or by race/national origin to the attention of decision makers.
2. The Education Division should make data on sex differences readily accessible to identified users of such data outside of the government.
3. All Education Division evaluations should include an anlysis of the differential impact of programs on the sexes and on various racial/ethnic groups within each sex.
4. Evaluation findings that show a differential impact by sex should be entered into an action-decision mechanism such as the PIM (see p.12).
5. All policy studies should include an analysis of the impact of various policies on girls and women.
6. Additional funds should be made available for research into the factors behind sex differences in participation and employment in Education Division programs.

Footnotes

[1]U.S. Department of Health, Education and Welfare, Office of Education. "Vocational Education. State Programs and Commissioner's Discretionary Programs," *Federal Register*, Vol. 42, No. 67, April 7, 1977, p. 18553.

[2]Barbara A. Feller, *Directory of Federal Agency Education Data Tapes* (Washington: U.S. Department of Health, Education and Welfare, Education Division, National Center for Education Statistics, 1967).

[3]Ibid., p. 35.

[4]Memorandum from Director, Women's Program Staff to Commissioner of Education, "Collection of Data by Sex/Race." Dated May 31, 1977, U.S. Department of Health, Education and Welfare, Office of Education.

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